

WHAT IS CLAIMED IS:

1. A method of preventing comprehension of a printed document, the method comprising:
 - feeding a printed document into a device having a printing mechanism;
 - printing, with the printing mechanism over at least a portion of the printed document to prevent comprehension of the printed document.
2. The method of claim 1 and further comprising:
 - shredding the printed document after printing over the printed document.
3. The method of claim 1 and further comprising:
 - scanning the printed document prior to printing over the printed document to produce at least one of an image file and an electronic text file of the printed document;
 - identifying, based upon the at least one image file and electronic text file, which portion of the printed document contains information to be obscured; and
 - directing printing at least one ink and toner to the printed document to obfuscate the identified information of the printed document.
4. The method of claim 3 wherein directing printing of the at least one ink and toner comprises:
 - directing printing to at least one of:
 - a whitespace portion of the printed document;
 - a text portion of the printed document; and
 - a graphics portion of the printed document.
5. The method of claim 3 and further comprising:
 - shredding the obfuscated printed document.
6. The method of claim 3 and further comprising:

determining, based upon the image file, a first pattern of symbols in the printed document;

building a second pattern of symbols with each symbol of the second pattern selected to correspond to one or more symbols of the first pattern to obfuscate comprehension of the first pattern of symbols of the printed document; and

printing the second pattern of symbols on the printed document relative to the first pattern of symbols on the printed document to prevent comprehension of the at least one portion of the printed document.

7. The method of claim 6 wherein determining the first pattern of symbols comprises:

determining a font of the first pattern of symbols of the printed document including selecting at least one of a character font, a character size, a character spacing, a line spacing, a paragraph spacing, and a margin spacing.

8. The method of claim 6 wherein building the second pattern of symbols comprises at least one of:

using a resident font of the printing mechanism of the device; and
emulating the font of the printed document.

9. The method of claim 3 wherein directing printing comprises at least one of :

using at least one of following steps before shredding the printed document:

printing characters randomly in a white space portion of the printed document;

randomly selecting characters and printing the selected characters as overstrikes on characters of the printed document;

selecting a character that complementarily obscures an identified character of the printed document and printing the selected character as an overstrike onto the identified character of the printed document;

selecting a negative image of an identified character of the printed document and printing the negative image about the identified character of the printed document;

randomly selecting characters and printing strings of the selected characters at randomly selected angles on the printed document; and

randomly selecting characters and printing the selected characters individually at angles rotated relative to existing characters of the printed document.

10. The method of claim 1 wherein printing over the printed document further comprises:

directing printing at least one of ink and toner in at least one of:
a random pattern of individual pixels; and

a random pattern of pixel clusters with each pixel cluster having at least one of a randomly selected shape, a random selected color, a randomly selected intensity, a randomly selected size, a randomly selected location on the printed document.

11. The method of claim 10 wherein directing printing of a random pattern of pixel clusters comprises driving the random pattern with at least one of a linear geometric function, a non-linear geometric function, a repeating function, and a non-repeating function.

12. The method of claim 10 and further comprising:

scanning the printed document prior to printing over the printed document to produce at least one of an image file of the printed document;

identifying, based upon the image file, which portion of the printed document contains information to be obscured; and

directing printing of the at least one ink and toner to the identified portion of the printed document.

13. The method of claim 3 wherein printing comprises at least one of:

randomly selecting a plurality of content-free words and printing the selected words in a non-grammatical order in a whitespace of the printed document with the selected words printed in at least one of a repeating pattern and a non-repeating pattern;

selecting a plurality of content-free words and printing the selected words in a grammatical order in whitespace of the printed document;

selecting at least one character and printing the at least one character as an overstrike on top of an identified character in a word of the printed document; and

printing a block of the at least one ink and toner over at least one of a selected character, a selected word, a selected phrase, a selected line of text, and a selected paragraph.

14. The method of claim 3 wherein identifying comprises:

identifying from the image file at least one graphic of the printed document and selecting at least one of:

a blocking pattern including at least one of an irregular shaped blot out pattern, a grid pattern, a cross-hatching pattern; and

a graphic manipulation pattern including at least one of mirror image of the graphic, a complementary image of the graphic, a rotated image of the graphic, a negative image of the graphic, and a scrambled image of the graphic.

15. A document obfuscator comprising:

a printing mechanism configured to print at least one of an ink and a toner on a paper document;

a memory;

a obfuscation module stored in a memory and configured to cause the printing mechanism to print the at least one ink and toner over at least a portion of a printed document to obfuscate at least a portion of the printed document.

16. The document obfuscator of claim 15 and further comprising at least one of:

a scanner configured for obtaining an image file of the printed document;
and
an optical character recognition module configured for converting the
image file into an electronic text file.

17. The document obfuscator of claim 15 and further comprises at least one
of:

a shredder incorporated into the document obfuscator; and
a system including the document obfuscator and a shredder configured
for shredding the obfuscated document.

18. The document obfuscator of claim 15 wherein the obfuscation module
comprises:

an overprint manager stored in the memory including:
a page analyzer configured for identifying at least one of an appearance
and a content of the printed document;

an overprint response selector configured for selecting a pattern of
printing the at least one ink and toner to obscured the appearance or content of
the printed document; and

an automatic overwriter module configured for directing printing of the
at least one ink and toner independent of the appearance and content of the
printed document.

19. The document obfuscator of claim 15 wherein an array of symbols and
patterns is stored in the memory and configured for selection by the obfuscation
module for printing over the printed document.

20. The document obfuscator of claim 18 wherein the overprint response
selector comprises at least one of:

a pattern manipulator configured for selecting a second pattern of symbol
misinformation that confuses a first pattern of symbols of the printed document;

a character manipulator configured for selecting a plurality of characters for overprinting onto at least one of a whitespace and an at least one character of the printed document;

a word manipulator configured for selecting a plurality of words, blackouts, overstrike characters for overprinting onto at least one of a whitespace, a word, a phrase, a line, a paragraph to obscure natural language word groupings of the printed document;

a pixel manipulator configured for selecting at least one of a plurality of individual pixels and a plurality of pixel clusters for overprinting onto the printed document; and

an image manipulator configured for selecting at least one of a blackout pattern and a confusing image pattern for overprinting onto a graphic of the printed document to obfuscate the printed document.

21. A document obfuscator comprising:

means for printing at least one of an ink and a toner over at least one portion of a printed document; and

means for determining a pattern of the at least one ink and the toner to be overprinted on the at least one portion of the printed document to obfuscate the printed document.

22. The document obfuscator of claim 21 comprising at least one of:

means for determining at least one of a content and an appearance of the printed document.

23. The document obfuscator of claim 21 wherein the means for determining a pattern includes directing printing onto at least one of:

a whitespace portion of the printed document;

a text portion of the printed document; and

a graphics portion of the printed document.

24. The document obfuscator of claim 21 and further comprising:

means for mechanically separating the printed document into a plurality of document particles.

25. A printer driver comprising:

an overprint manager stored in a memory and including:

a page analyzer configured for identifying at least one an appearance and a content of a printed document;

an overprint response selector configured for selecting a pattern of printing of at least one of an ink and a toner to obscure the appearance or content of the printed document; and

an automatic overwriter module configured for directing printing of the at least one ink and toner independent of the appearance and content of the printed document.

26. A computer readable medium having computer-executable instructions for performing a method of obfuscating a printed document, the method comprising:

identifying at least one portion of a printed document to be obscured; and

manipulating at least one of a symbol pattern, a character pattern, a word pattern, a random pixel pattern, and an image pattern for printing onto at least one of a whitespace portion, a text portion, and a graphics portion of the printed document to obfuscate the identified portion of the printed document.

27. The medium of claim 26 wherein:

manipulating a symbol pattern includes selecting a second pattern of symbol misinformation that confuses a first pattern of symbols of the printed document;

manipulating a character pattern includes selecting a plurality of characters for overprinting onto at least one of the whitespace portion and an at least one character of text portion of the printed document;

manipulating a word pattern includes selecting a plurality of words, blackouts, overstrike characters for overprinting onto at least one of the

whitespace portion, a word of the text portion, a phrase of the text portion, a line of the text portion, a paragraph of the text portion to obscure natural language word groupings of the text portion of the printed document;

manipulating a pixel pattern includes selecting at least one of a plurality of individual pixels and a plurality of pixel clusters for overprinting onto the printed document; and

manipulating an image pattern includes selecting at least one of a blackout pattern and a confusing image pattern for overprinting onto the graphic portion of the printed document to obfuscate the printed document.